

REMARKS

Applicant is in receipt of the Office Action mailed February 9, 2005. Claims 21, 53, 96, and 129 have been cancelled. Claims 1, 22, 23, 25, 26, 54, 55, 56, 66, 72, 97, and 98 have been amended. New claim 132 has been added. Thus, claims 1-20, 22-52, 54-95, 97-128, and 130-132 remain pending in the case. Reconsideration of the present case is earnestly requested in light of the following remarks.

Objections

Claim 1 was objected to for an informality, and had been amended accordingly. Removal of the objection is respectfully requested.

Section 102 Rejections

Claims 1-11, 13-46, 48-73, 77-99, and 103-131 were rejected under 35 U.S.C. 102(e) as being anticipated by Humpleman et al (U.S. Patent 6,603,488, "Humpleman"). Applicant respectfully disagrees.

Amended claim 1 recites:

1. A computer network, comprising:
 - a plurality of interconnected nodes, each one of said plurality of nodes having a corresponding data terminal equipment (DTE) device coupled thereto, wherein each of said corresponding DTE devices comprises:
 - a computing system located at a first location;
 - a human interface located remotely from said first location, said human interface comprising a display device and an input/output ("I/O") device;
 - a first interface device operable to couple to said computing system;
 - a second interface device operable to couple to said display device and said I/O device of said human interface; and
 - at least one transmission line operable to couple said first and second interface devices;

wherein said first interface device is operable to receive from said computing system a video signal to be transmitted to said display device and a non-video signal to be transmitted to said I/O device, and to convert each of said video signal and said non-video signal into a format suitable for transmission to said second interface device;

wherein said first interface device is operable to transmit said converted video signal and said converted non-video signal to said second interface device via said at least one transmission line;

wherein said second interface device is operable to receive said converted video signal and said converted non-video signal from said first interface device and to provide said video signal and said non-video signal to said display device and said I/O device, respectively; and

wherein the computing systems of the DTE devices are commonly located at the first location.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Office Action asserts that Humpleman teaches all the features and limitations of claim 1. Applicant respectfully submits that there are numerous features and limitations of amended claim 1 that are not taught or suggested by Humpleman.

For example, nowhere does Humpleman disclose multiple DTE devices, *wherein each of said corresponding DTE devices comprises: a computing system located at a first location; ...wherein the computing systems of the DTE devices are commonly located at the first location*. In other words, Humpleman fails to teach or suggest a plurality of co-located computing systems, each coupled to a respective human interface located remotely from the co-located computing systems. Rather, in Humpleman's system, the

various computing systems, e.g., servers, PCs, etc., are located anywhere in the home as desired. No mention is made in Humpleman of co-locating multiple computing systems.

Applicant further submits that Humpleman fails to teach or suggest that each commonly located computing system has a corresponding remotely located human interface as defined in claim 1 and the specification. As claim 1 recites in part regarding the plurality respective user interfaces of the DTE devices, each human interface includes “*a display device and an input/output (“I/O”) device*”. Applicant notes that as defined and described in the specification, each of Applicant’s human interfaces specifically *do not* include a computing device, e.g., a processor and memory for executing applications, e.g., web browsers. For example,

the Background of the present application states:

“In order to fully resolve the aforementioned issues, *the entire computing system needs to be physically separated from the human interface*, specifically, by keeping the human interface (monitor, keyboard, mouse and printer) at the workstation while relocating the associated computing system (chassis holding the motherboard, power supply, memory, disk drives, etc.) to a secured computer room where plural computing systems are maintained.” (page 6, lines 5-10)

“Therefore, what is needed is a computer network comprised of *plural computers, each configured such that a human interface portion thereof is remotely located relative to a computing system portion thereof, in which plural computing systems are located at a common location*”. (page 6, lines 24-27)

Accordingly, as illustrated in Figure 1, and described col. 12, lines 16-21, of the Specification:

“...each of the DTE devices 6d through 6i are PCs, specifically PCs comprised of a computing system 12 coupled to a remotely located human interface 14. As further illustrated in FIG. 1, the computing systems 12 are commonly located.”

Similarly, on page 12, line 26 – page 13, line 9, the specification states:

“Various benefits are achieved by configuring the computer network 1 to include plural DTE devices, specifically the DTE devices 6d through 6i, each comprised of a commonly located computing system 12 for which the human interface 14 is remotely located relative to the corresponding computing system 12. Specifically, it is well appreciated in the art that the various DTE devices which comprise a computer network are typically geographically scattered throughout a building or other complex, thereby leading to the maintenance, repair and, if the users of the DTE devices have access to network facilities via a floppy drive or other device, security problems discussed herein. All of these problems may be readily eliminated by housing all of the computing systems 12 in one or more support structures 5 which, in turn, may be located in a secured, limited access computer room 7 specially designed to meet the power and cooling requirements for the collection of commonly located computing systems 12.”

Applicant further notes that nowhere in the present application is a user interface described or defined as including a computer, e.g., operable to execute a web browser.

In fact, the inclusion of a computer at the human interface would negate much of the benefits of the present invention as represented in claim 1, where, as stated in the above quoted passage, such an arrangement obviates the need for maintaining and managing computers that are *not* centrally located. Moreover, including a computer in the user interface would also be superfluous, since each user interface specifically allows the user access to a corresponding computer located at the central, e.g., first, location.

In direct contrast, in Humpleman's system, various networked devices, e.g., a server computers, TVs, DVCR, DVD, etc., are controllable via at least one client system or device, e.g., a DTV or PC, that executes software to display a user interface for the networked devices. As Humpleman states in the specification:

A client-server relationship exists among the attached devices, with the DTV 102 typically behaving as the client and home devices DVCR 110, DVD 108, DSS-NIU 104 and security system 120 behaving as servers. (col. 6, lines 61-64)

The browser based DTV 102 (acting as a client), receives and interprets the HTML files associated with the home devices (acting as servers) and graphically displays the respective control and command information on its viewable display. (col. 7, lines 3-7)

Applicant respectfully submits that significant computational resources are inherent in the client systems of Humpleman, given that each of the client devices necessarily executes browser software to display user interfaces for devices on the network. Applicant further submits that the example client devices described in Humpleman, specifically, the DTV and PC, each includes a processor and memory (“the browser based DTV receives and interprets the HTML files”), and thus is not a “remote human interface” as described and defined in the present application and claims.

Moreover, Applicant further submits that Humpleman fails to teach or suggest that *each* DTE (of the plurality of DTE devices) includes a computing system coupled to a respective human interface.

Rather, in Humpleman's system, a single client device provides user interface functionality for a plurality of networked devices including any computers, e.g. servers, included in the network. In fact, a primary functionality of Humpleman is that the user may control all of the various networked “server” devices from a single “client” device. Thus, Applicant submits that Humpleman actually teaches away from Applicant's invention as represented in claim 1, since modifying Humpleman to produce Applicant's invention would render Humpleman's system inoperable to perform its intended functionality.

Additionally, Applicant respectfully submits that the Examiner's characterization of Humpleman as teaching all of the features and limitations of claim 1 is improper. Applicant notes that, as represented in claim 1, each commonly located (i.e., co-located) computing system couples to a respective human interface in the following way: the computing system couples to the first interface device, which couples to the second interface device via the at least one transmission line, and where the second interface device then couples to the human interface.

Applicant submits that there are numerous problems with the Examiner's characterization of Humpleman. For example, Applicant notes that all of the devices on Humpleman's home network are terminal devices on the network, and as such, are not properly "interface devices". As is well known in the art, an interface device is a device interposed between two devices, e.g., a data source and a data target, for the necessary purpose of converting signals originating from the source into a form suitable for reception and/or use by the target. More specifically, as recited in claim 1, "said first interface device is operable to receive from said computing system a video signal to be transmitted to said display device and a non-video signal to be transmitted to said I/O device, and to convert each of said video signal and said non-video signal into a format suitable for transmission to said second interface device". Similarly, "said second interface device is operable to receive said converted video signal and said converted non-video signal from said first interface device and to provide said video signal and said non-video signal to said display device and said I/O device, respectively". Humpleman fails to disclose such devices.

As another example, according to the Examiner's arguments, Humpleman's Home Server or DHCP Server comprise a computing system as represented in claim 1. Applicant notes that amended claim 1 recites a plurality of commonly located computing systems, and submits that Humpleman does not describe the Home Server and DHCP Server as commonly located.

As yet another example, the Examiner asserts that Humpleman's DTV or Personal Computer teaches the human interface of claim 1. However, Applicant respectfully notes that amended claim 1 recites a plurality of remote human interfaces, each corresponding to a respective one of the plurality of computing systems, and that Humpleman fails to disclose or describe such an arrangement. For example, to meet this limitation, Humpleman's DTV and Personal Computer would necessarily have to have Humpleman's Home Server and DHCP Server as *respective* human interfaces. Humpleman nowhere describes or discloses such a system. In fact, the Examiner argues that the DTV or Personal Computer provides a human interface *to the Network*, which Applicant respectfully submits does not teach the specific interface functionality recited in claim 1.

As a further example, the Examiner has argued that Humpleman's DTV 102 is a (single) human interface, and has further argued that the DTV 102 is also the first interface device. Applicant respectfully submits that this is improper, and notes that if the DTV 102 is considered to be the first interface device, then that leaves only the Personal Computer as the human interface, which, for at least the reasons provided above, is improper. Moreover, Applicant notes that, as mentioned above, according to claim 1, signals, e.g., video and non-video signals, originating from one of the plurality of computing systems are necessarily transmitted to the first interface device, which converts the video signal and the non-video signal into a format suitable for transmission to the second interface device, which in turn converts the video signal and the converted non-video signal from the first interface device and provides the video signal and non-video signal to the display device and the I/O device, respectively. The network disclosed by Humpleman and as characterized by the Examiner in no way provides this functionality. For example, the Examiner asserts that "a second interface device operable to couple to the display device and the I/O device..." is met by DVD 108, Dad's DTV or DVCR 110, which is a second interface device coupled to Screen or Display Unit and mouse of DTV 102. Applicant submits that according to the Examiner's characterization, the DVD 108, Dad's DTV or DVCR 110, operating as the second interface device, is interposed between the DTV 102 (first interface device) and the DTV 102 Screen or Display Unit (the human interface), and thus should be operable to "to receive said converted video signal and said converted non-video signal from said first interface device and to provide said video signal and said non-video signal to said display device and said I/O device, respectively", as recited in claim 1. Applicant respectfully submits that DTV 102 does not require any such device to convert signals for transmission from itself to itself, and thus submits that the Examiner's characterization is incorrect and improper.

The Examiner asserts that "the DTV 102 is operable to receive from H/DHCP 150/106 a video signal via satellite and Direct Broadcast Satellite Services (DBSS) 104 to be transmitted to DTV 102 Screen or Display Unit and control/command (CC) information "non-video signal" to be transmitted to the mouse, and convert each of the video signal and CC information into a format suitable for transmission to the DVD 108,

DVCR 110, etc.” However, Applicant respectfully submits that the Examiner’s characterization of the DTV 102 as both the first interface device and the user interface (the Display Unit of DTV 102) is improper, since it is only one device. Furthermore, the Examiner asserts that the DTV 102 also receives command/control (CC) information (the “non-video signal”) from H/DHCP 150/106 “for transmission to the mouse”. Applicant respectfully submits that this does not make sense, technically, since a computer mouse does not receive command/control signals, but rather *sends* signals, e.g., indicating movement of a cursor, as is well known in the art. Applicant also submits that the Examiner’s characterization of H/DHCP 150/106 as a computing system is improper, and further submits that the H/DHCP 150/106, even if interpreted as a computing system, is not one of a plurality of commonly located computing systems.

There are numerous other problems with the Examiner’s characterization of Humpleman’s system. However, the above descriptions are exemplary of the additional problems with the Examiner’s assertions, and thus, these additional problems need not be addressed at this time.

Thus, for at least the reasons provided above, Applicant submits that Humpleman fails to teach or suggest all the features and limitations of claim 1, and so claim 1 and those claims depended therefrom are patentably distinct and non-obvious over Humpleman, and are thus allowable.

Independent claims 26, 55, 56, 66, 72, and 98 include similar limitations as claim 1, and so the above arguments apply with equal force to those claims. Thus, for at least the reasons proved above, Applicant respectfully submits that claims 26, 55, 56, 66, 72, and 98, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over the cited art, and are thus allowable.

Removal of the 102 rejection of claims 1-11, 13-46, 48-73, 77-99, and 103-131 is respectfully requested.

Section 103 Rejections

Claims 12 and 47 were rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al (U.S. Patent 6,603,488, “Humpleman”) as applied to claims 1 and

46, and in view of Gorman (U.S. Patent 6,141,356, “Gorman”). Applicant respectfully disagrees.

To establish a *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974), MPEP 2143.03. Obviousness cannot be established by combining or modifying the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion or incentive to do so. *In re Bond*, 910 F. 2d 81, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).

Applicant submits that since the independent claims have been shown above to be patentably distinct and allowable, their respective dependent claims are similarly allowable, i.e., are patentably distinct and non-obvious over the cited art.

Moreover, as held by the U.S. Court of Appeals for the Federal Circuit in *Ecolchem Inc. v. Southern California Edison Co.*, an obviousness claim that lacks evidence of a suggestion or motivation for one of skill in the art to combine prior art references to produce the claimed invention is defective as hindsight analysis.

In addition, the showing of a suggestion, teaching, or motivation to combine prior teachings “must be clear and particular Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence’.” *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). The art must fairly teach or suggest to one to make the specific combination as claimed. That one achieves an improved result by making such a combination is no more than hindsight without an initial suggestion to make the combination.

Applicant respectfully submits that neither Humpleman nor Gorman provides a motivation to combine. For example, nowhere does Humpleman mention, or even hint at, the use or desirability of using a 4-wire cable to couple first and second interface device as represented in claims 12 and 47, nor does Gorman suggest or hint at implementing a system as recited in the independent claims using a 4-wire cable. In fact,

Gorman fails to mention or even hint at such interface devices at all. Gorman also fails to mention or hint at the desirability of a system comprising a plurality of commonly located computing systems with respective remote human interfaces.

Applicant notes that the only motivation suggested by the Examiner is “to provide a 2-wire and 4-wire telephone cabling transmission line and provide services for users with telephone lines without the cost of installing new wiring for the network”, which Applicant submits is simply citing an improved result by making such a combination without an initial suggestion to make the combination, and is thus nothing more than hindsight analysis, which is improper. Thus, Applicant submits that the attempted combination is improper.

Applicant further submits that even were Humpleman and Gorman properly combinable, which Applicant argues they are not, the resulting combination would still not teach Applicant’s invention, as argued in detail above. Applicant notes that according to Gorman’s Abstract, Gorman’s system is directed to

“A method and device for distributing both high-speed data service, such as digital computer, video and multimedia data, and lower speed data service, such as POTS voice telephone signals, throughout a customer premises. High-speed digital data and lower speed POTS voice signals are separated by a POTS splitter and distributed throughout the customer premises on separate distribution networks. The lower speed POTS is carried on a wireless distribution network and the high-speed data carried on the existing customer premises wiring ordinarily used for POTS.”

As may be seen, Gorman’s system involves two distinct networks, a high-speed POTS wiring network for distributing video and multimedia data, and a low-speed wireless network for distributing telephone signals. Applicant notes that Gorman’s high-speed network does not include Applicant’s system of a plurality of commonly located computers coupled respectively to remote human interfaces. Rather, in Gorman’s system the house’s telephone wiring is used to network a variety of peer devices throughout the house. In other words, since both Humpleman and Gorman disclose networks wherein each device is a terminal node on the network, the particular signal paths and interface

devices of Applicant's system are not disclosed or supported, and so Gorman fails to remedy the deficiencies of Humpleman.

Applicant further notes that per *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985), it is insufficient to select from the prior art the separate components of the inventor's combination, using the blueprint supplied by the inventor. Applicant respectfully submits that the Examiner has done just this in attempting to combine Humpleman and Gorman, which is improper.

Thus, for at least the reasons provide above, Applicant submits that neither Gorman, nor Humpleman, taken singly or in combination, teaches or suggests all the limitations and features of claims 12 and 47, and so, for at least the reasons provide above, Applicant submits that claims 12 and 47 are patentably distinct and non-obvious over the cited art. Removal of the 103 rejection of these claims is respectfully requested.

Claims 74-76 and 100-102 were rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al (U.S. Patent 6,603,488, "Humpleman") as applied to claims 73 and 99, and in view of Papanicolaou et al (Re 36,707, "Papanicolaou"). Applicant respectfully disagrees.

As noted above, Applicant submits that since the independent claims have been shown above to be patentably distinct and allowable, their respective dependent claims are similarly allowable, i.e., are patentably distinct and non-obvious over the cited art.

Additional reasons for the allowability of claims 74-76 and 100-102 are provided below.

Applicant respectfully submits that neither Humpleman nor Papanicolaou provides a motivation to combine. For example, nowhere does Humpleman mention, or even hint at, the use or desirability of the video signal comprising an analog signal as represented in claims 74 and 100. In fact, since Humpleman's system is specifically directed to a digital network, Applicant submits that Humpleman *teaches away* from the embodiment represented by claims 74 and 100, and further submits that modifying

Humpleman to include analog video signals would in fact render Humpleman's system incapable of performing its intended functionality.

Nor does Papanicolaou suggest or hint at implementing a system as recited in the independent claims using an analog video signal. For example, Papanicolaou fails to mention or even hint at the desirability of a system comprising a plurality of commonly located computing systems with respective remote human interfaces, and further fails to mention or hint at such interface devices at all.

Applicant notes that the only motivation suggested by the Examiner is "to provide analog video for users with analog television receivers, and provide services to all users, regardless of the user's terminal receiving device", which Applicant submits is simply citing an improved result by making such a combination without an initial suggestion to make the combination, and is thus nothing more than hindsight analysis, which is improper. Thus, Applicant submits that the attempted combination is improper. Applicant further notes that the Examiner has not provided any suggestion as to how one might combine Humpleman and Papanicolaou, given the difficulties inherent in mixing analog and digital signals in a single system. Rather, the Examiner has simply asserted such a system without any indication as to its feasibility or means of operation.

Applicant further submits that even were Humpleman and Papanicolaou properly combinable, which Applicant argues they are not, the resulting combination would still not teach Applicant's invention, as argued above, given that Humpleman's system is inherently digital.

Applicant further notes that per *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985), it is insufficient to select from the prior art the separate components of the inventor's combination, using the blueprint supplied by the inventor. Applicant respectfully submits that the Examiner has done just this in attempting to combine Humpleman and Papanicolaou, which is improper.

Thus, for at least the reasons provide above, Applicant submits that neither Papanicolaou, nor Humpleman, taken singly or in combination, teaches or suggests all the limitations and features of claims 74 and 100, and so, for at least the reasons provide above, Applicant submits that claims 74 and 100, and those claims respectively

dependent therefrom, are patentably distinct and non-obvious over the cited art. Removal of the 103 rejection of claims 74-76 and 100-102 is respectfully requested.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5602/04203.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Notice of Change of Address

Respectfully submitted,



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